

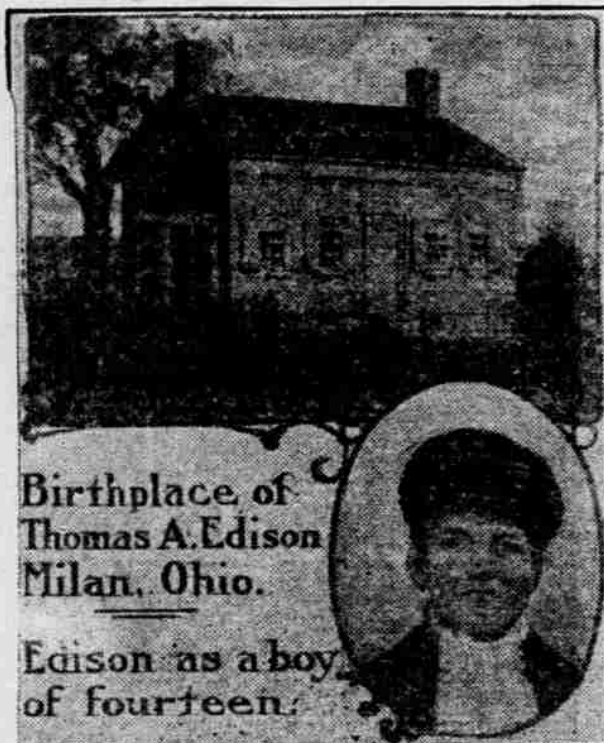
Thomas A. Edison, the Inventor

THE WIZARD OF THE TWENTIETH CENTURY

Written by Jesse F. Matteson

SIXTY years ago this month, when Thomas Alva Edison was born in a little house in Milan, Ohio, hardly more than a hamlet, the world thought that it was moving along at a pretty rapid pace. It thought that it knew a great deal; that its constructive force was so potent nothing more need be desired.

But today, as the world stands and looks back through those sixty years it realizes that the nucleus of its constructive force and its brains hardly had its beginning until the day the infant Edison, a healthy, vigorous, squalling youngster, was introduced to Milan society.



Since that day Thomas A. Edison has contributed more than any living man to the advancement of the human race. Millions upon millions of dollars are employed in enterprises made possible by his genius and industry and hundreds of thousands of men are employed by those enterprises which we might never have known had it not been for this wizard of the twentieth century.

Mr. Edison and his works are powers in the development of the world which even we of the present century fail to give their proper force, for the reason that they are so amazingly wonderful our minds cannot grasp their importance.

HIS WORKS ALL ABOUT US.

All about us we behold the works of this great man. There is the improved telephone, the modern telegraph, the storage battery, and last but not least the phonograph, which he invented and gave to the world and which he controls still because he loves it best of all his inventions. This human, laughing, talking, singing machine, which almost breathes, walks and thinks, confronts us everywhere. The home of today that does not possess an Edison phonograph is either the home in which this opportunity has been neglected or the home so extremely poor that it cannot afford to take even one slice of bread from the table to help pay for a bit of pleasure and entertainment. I mention this as there is a special free trial offer for all honest people who would like to try the Edison in their homes. Read what the editor says on the back page.

In a few years the Edison phonograph will be the idol of the world as an entertainer, because Mr. Edison's firm stand that the profits on this instrument should be cut to the very minimum has made it possible for almost everybody to enjoy the music of his phonograph. Strange as it may seem, Mr. Edison has cast most of his other inventions aside—sold them outright to companies which are now manufacturing them, but he retains control of nearly all the stock in his talking machine, because it pleases him more than any other invention he ever made.

ENJOYS HIS OWN PHONOGRAPH.

Even now when he listens to one of his phonographs he laughs as heartily as does the man who hears one for the first time. This is one of the boyish peculiarities of the great man. It wasn't long ago that he made the declaration that he wanted to see a phonograph in every American home, and straightway he set about helping to place one in every home by knocking the price down to the very lowest figure.

While his phonograph was not by any means his first great invention I have mentioned it first because of the great attachment the inventor always showed for this instrument. In speaking of it to me one day while we were sitting with the gray vapors of his laboratory enveloping us, he said: "I love that instrument as much as I could love a child of my own. When first it talked it gave me as much joy as the prattle of a baby. I have watched it grow year after year with as much interest as I would watch the development of the brain of a son or a daughter."

Then there is the kinetoscope. What a wonderful invention that was! To us who know the theory of its workings it doesn't seem an impossible invention, but suppose the plan had been given to us in a dim outline before the instrument became a fact, what then? Could any brain but that of the great Edison have grasped it? This machine is another favorite of the wizard's, but he has disposed of it as he has disposed for the most part of those sterling inventions, such as the electric railroad, the quadruplex telegraph, the electric light, the telephone transmitter, the megaphone,

and many of the other marvelous contributions which his brain has given to civilization.

EDISON A WONDERFUL BOY.

Young Edison was hardly out of his swaddling clothes before he began to show remarkable precocity. He read everything that fell into his hands, including all of the historical and scientific works he could find. His head was enormously large, and at the age of fourteen his father's cap would hardly go down over his expansive brow. His mother was a former high school teacher and she tutored her son so successfully that he spent only about three months in the country school. Then he was sent away to study. He absorbed everything, and when he came home a physician told his father, Samuel Edison, to put the young man to work that his mind might be diverted from his studies and from books.

It wasn't long before young Edison was given a job as a newsboy on a train running between Detroit and Port Huron. He started a little store in Port Huron where he sold eggs, butter and fruits which he bought from the farmers along the railroad.

MAKES \$100 ON PAPERS.

When the battle of Pittsburg Landing was fought the first reports that reached Detroit were that 60,000 had been killed and wounded. Young Edison usually sold about forty papers on his trip, but he knew he should have many more than that on the day of the battle. He had money enough to buy 400, and the owner of the Detroit Free Press trusted him for 600 more. The enterprising youth induced a telegraph operator to flash the news along one line, knowing that everyone would want a paper. The result was that the station platforms were crowded with eager men and women who wanted to get the first news from the front. He sold every one of the 1,000 papers at greatly increased prices, some as high as 25 cents, and cleared about \$100. This awakened in him a desire to become a telegraph operator. He learned the code and worked at Detroit, Memphis, Louisville and Boston for the Western Union Company. Finally he drifted into New York with but little money, having



THOMAS A. EDISON AS HE APPEARS TODAY

expended the most of his earnings in experimenting with the end in view of inventing a better telegraph instrument.

He was offered a position at the key at \$90 a month, but he wanted more time to work over his ideas and wouldn't accept it, even though he was forced to sleep in the park with a motley crowd of unemployed on several occasions.

OPPORTUNITY COMES TO HIM.

The young man had plenty of time on his hands, and when he was not studying his half-formulated plans he was usually in the office of the Gold & Stock Company, standing by one of the tickers, taking in the mechanism as a sponge absorbs water. The gold fever was rampant, and the news carried by the ticker was of the greatest importance. One day, with a flash and a sputter, the ticker stopped abruptly. The entire New York service was tied up. Hundreds of concerns began clamoring for a restoration of service all at once. Each one wanted a representative of the company to come to his office at once and repair his stalled ticker. The manager was helpless and almost distracted.

"I think I can fix your machine for

you," said the boyish-looking young man with the large head who was near the machine.

"Well, then, please do it," said the manager in an appealing manner.

In five minutes young Edison had the ticker going again. He was offered \$300 a month on the spot to take charge of the ticker service. In relating the story afterwards he said the amount almost stunned him.

MAKES HIS FIRST INVENTIONS.

Immediately he began to carry out plans for the betterment of the service and invented several contrivances which the company adopted almost at once. When the day of settlement arrived and young Edison was called into the office of the president of the company he began to wonder what he would be given for his inventions. He thought that it wouldn't be less than \$5,000, anyway.

"My heart was fluttering," said Mr. Edison in telling the story, "and I was afraid that if I mentioned \$5,000 I wouldn't get anything at all. When I was asked what I wanted I said: 'Suppose you make me an offer.'"

"When I was told that the company would pay me \$40,000 I nearly fell off the chair, but replied as calmly as I could that I guessed that would be all right."

A few days later the young man signed the contract without reading it, he says, and received the check for \$40,000, still believing that he was being swindled by a "Wall Street skin game." He neglected to indorse the check when he presented it at the bank and the cashier shoved it back at him, shouting out something which he did not understand. Young Edison handed in the check a second time, only to be repulsed in the same way.

BELIEVED HE WAS "JOBBER."

This time he went away with a sinking heart, believing firmly that he had been swindled. He went to the brother of the manager of the company and told his experience. Of course, his story met with roars of laughter, and the company sent a representative to the bank with him.

A trick was played on him there when he was paid in small bills. He stuffed the money into every one of his pockets and even then didn't have quite enough room. Mr. Edison wonders now that he was not robbed.

It wasn't long after that when he invented the quadruplex telegraph and other concomitants which were taken up and used by the Western Union Company. Mr. Edison expected to receive from these about the same amount he got from the Gold & Stock Company, or \$40,000; but he replied as he did before when asked what he wanted for his inventions: "Suppose you make me an offer."

He was told that the telegraph company was willing to pay him \$100,000.

"For the second time I nearly fell off my chair," said Mr. Edison. "My \$40,000 had taken wings in the experiments I had made, and so I told them that I would accept the \$100,000 if they would pay me in seventeen yearly installments. This the company agreed to do, and I was thus furnished with a working capital and could carry on my experiments without hindrance."

STARTS TO WORK IN EARNEST.

It was then that Mr. Edison fitted up a complete laboratory and started to work in earnest. While he had not quite yet started the world with his quadruplex he had become extremely well known.

In a very short time Mr. Edison became a tremendous power in the world of science. His wonders followed one another in rapid succession after he once started his never-tiring, and his almost never-sleeping campaign. The tiny electric light enclosed in the glass bulb which fills us with wonder every time we look upon it burst upon the world to throw its light even into the half-civilized parts of the globe. Each time we look upon this tiny light we are filled with awe and wonder. It is but natural for us to say to ourselves: "Would the world still be without the electric light if Edison had not yet been born?" Who can answer such a question? We only know that the world was old—very old—when Edison came into it and brilliant brains which had preceded him here had been satisfied with the oil lamp and the pine knot because they were unable to invent anything to take their places.

One after the other the amazing scientific feats of this amazing individual were brought to the attention of the world. He upset scientific principles, he cast to the winds the theories of ages and he ousted from his reckoning the ancient ideas which for thousands of years had held the world in a state of thralldom.

ELECTRICITY TO DISPLACE STEAM.

Through the power of his marvelous brain the electric railroad has been developed until today it is a strong competitor of the steam roads and, it is believed, elec-



trically eventually will take the place of steam power wherever steam power is now used.

Since he began his experiments in his modest laboratory close to half a century ago Mr. Edison has not stopped even for a moment. He has gone on at a mad pace which we wonder any mortal could hold. He has been tireless and unflagging. Hundreds of disappointments have stopped him for the moment, but they never stunned him; they never set him back. They but made him stronger and more determined to gain the object he had in view. Each failure added fuel to his genius, for he ever has kept uppermost the thought of "try, try again." Had not this thought been dominant perhaps even yet we might not have known the comforts and the blessings of the electric railroad, the kinetoscope, the phonograph, the quadruplex telegraph, the electric light and the steam railroad.

It is a matter of history that the phonograph was given the world as a complete and a thrilling success only after failure followed failure.

In all cases only his almost incredible working powers and an equally wonderful indifference to food have made it possible for the world to float in ease and comfort upon those wonderful things which he has given to the people fortunate enough to live in the present century.

PHONOGRAPH IS HIS PET.

While the quadruplex telegraph is one of Edison's greatest inventions, so far as money value is concerned, the phonograph is his pet because he knows what a fund of pleasure this "king of entertainers" is giving the world; and also because it is the greatest scientific wonder of all. It makes the union of sound, motion and matter. A person talks, a band plays, or somebody sings and the sound waves, the moving air makes tiny waves on the record so that the same sounds can be reproduced over and over again days or years afterward! The working model of the first Edison phonograph is in the laboratory of the wizard at Llewellyn Park, and only by comparing this with the amazingly perfect machine of today can one realize the years of labor that Mr. Edison gave to this one instrument.

Mr. Edison knew that his general plan was right, that a machine could be made to reproduce the vibrations of the human voice and the tones of musical instruments. How firm were his beliefs and how strong were the foundations for them can best be shown by an Edison phonograph, which stands today among the most marvelous pieces of mechanism the world ever has seen. On the following page is an illustration of the modernized Edison phonograph, which, however, gives you only a faint idea of the instrument as it really is. If you have never seen nor heard one of these wonderful machines you owe it to yourself to do so.

MR. EDISON STILL A HARD WORKER.

Mr. Edison, although 60 years old, has not stopped trying yet, nor will he stop until it is physically and mentally impossible for him to go further. The wizard still bubbles with enthusiasm over his projects and his plans, which are as yet in their infancy. Day after day he works with unceasing energy on his new electric storage battery, which presently is to revolutionize the wheeled traffic of cities. Mr. Edison is working also to produce electric power directly from coal. When that discovery is made the steam engine and boiler will be driven out of use. It will then be possible to have airships, and Mr. Edison says he expects to see them flying before his death. Such a discovery will make it possible to drive great ocean greyhounds across the sea at the rate of fifty miles an hour—three days across the Atlantic from shore to shore.

If these things are given to the world they will come, in part at least, through the power of Mr. Edison's brain concentration, and his ability to go days without sleep and almost without food.

SHOUTS "SPEZIA" FOR DAYS.

One of Mr. Edison's assistants tells the story that in working out the phonograph the inventor has spent from fifteen to twenty hours a day for six or seven months at a stretch shouting the word "Spezia" against the wax cylinders in his effort to have the syllables distinctly reproduced. The intense and prolonged labor which resulted in his new phonograph scarcely can be realized. Let the man who has a phonograph make a record of his own voice reproducing the word "Spezia" in the machine and he will see at once how success crowned the efforts of the determined genius.

Mr. Edison has an amazing memory, but even great and far reaching as it is he never is without his note book and he never fails to jot down immediately every idea that "hits" him no matter where he may be at the time it strikes. He attributes much of his success to his notes, all of which he has preserved. He builds his ideas up one after the other like a stone wall, a note on one particular subject here, on one page and another on another page being two necessary steps in his inventions. Occasionally one finds in running through his note books the single word "Hurrah," hand-printed clear across the page. This vociferous exclamation appears directly under a minute record of the various stages of progress in the quadruplex system of telegraphy and the incandescent electric light.

MANY IDEAS THROWN AWAY.

At the bottom of a notation, however, one sees frequently the talismanic letters "N. G." Whenever an item bears these letters no other mention of that particular thing ever is made. The general belief concerning Mr. Edison seems to be that every idea which flashes through his brilliant set of brains is a good, tangible idea, an idea worth something and one which he can turn into a mighty invention. In this respect we find we were wrong and that Mr. Edison, like ordinary individuals, has many ideas which are worthless to him and which he throws away as being of no value either at the time or later.

Every movement of Mr. Edison is interesting to his neighbors, and at night, when belated pedestrians on the street pass the Edison laboratory in Llewellyn Park, long after midnight, and see lights in the wizard's private rooms, they soliloquize thus: "Edison is working again night and day. Some new kind of scientific wonder soon is to be given to the world."